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(e) A5 is an amino acid sequence of 4 amino acid residues and has the sequence A5_a-A5_b-A5_c-A5_d (SEQ ID NO: 85), wherein A5_a through A5_d are independently selected amino acid residues;

(f) A6 is an amino acid sequence;

(g) A7 is an amino acid residue selected from the group consisting of Val and Ile;

(h) A8 is an amino acid sequence of 11 to 12 amino acid residues;

(i) A9 is an amino acid sequence of 5 to 7 amino acid residues; and

(j) A10 is an amino acid sequence;

wherein each of A2, A4, A6 and A10 has an independently selected number of independently selected amino acid residues and each sequence is selected such that each NAP domain has in total less than 120 amino acid residues, and wherein said protein has a NAP domain with an amino acid sequence having at least 90% sequence identity with the NAP domain of AcaNAPc2, wherein AcaNAPc2 has the amino acid sequence set forth in SEQ ID NO: 59.

284. (Newly added) An isolated protein having anticoagulant activity and having one or more NAP domains, wherein each NAP domain includes the sequence:

Cys-A1-Cys-A2-Cys-A3-Cys-A4-Cys-A5-Cys-A6-Cys-A7-Cys-A8-Cys-A9-Cys-A10
(FORMULA III), wherein

(a) A1 is an amino acid sequence of 7 to 8 amino acid residues;

(b) A2 is an amino acid sequence;

(c) A3 is an amino acid sequence of 3 amino acid residues and has the sequence Asp-Lys-Lys;

(d) A4 is an amino acid sequence having a net anionic charge;

(e) A5 is an amino acid sequence of 4 amino acid residues and has the sequence A5_a-A5_b-A5_c-A5_d, wherein A5_a is Leu, A5_c is Arg, and A5_b and A5_d are independently selected amino acid residues (SEQ ID NO: 357);

(f) A6 is an amino acid sequence;

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(g) A7 is Val;

(h) A8 is an amino acid sequence of 11 to 12 amino acid residues and includes the amino acid sequence A8_a-A8_b-Gly-Phe-Tyr-Arg-Asn (SEQ ID NO: 79), wherein at least one of A8_a and A8_b is Glu or Asp;

(i) A9 is an amino acid sequence of 5 to 7 amino acid residues; and

(j) A10 is an amino acid sequence;

wherein each of A2, A4, A6 and A10 has an independently selected number of independently selected amino acid residues and each sequence is selected such that each NAP domain has in total less than 120 amino acid residues, and wherein said protein has a NAP domain with an amino acid sequence having at least 90% sequence identity with the NAP domain of AcaNAPc2, wherein the amino acid sequence of AcaNAPc2 is set forth in SEQ ID NO: 59.

285. (Newly added) An isolated protein having Factor VIIa/TF inhibitory activity having a NAP domain with an amino acid sequence having at least 90% sequence identity with the NAP domain of AcaNAPc2, wherein the amino acid sequence of AcaNAPc2 is set forth in SEQ ID NO: 59.

286. (Newly added) An isolated protein having an amino acid sequence having at least 90% sequence identity with AcaNAPc2, wherein the amino acid sequence of AcaNAPc2 is set forth in SEQ ID NO: 59.

287. (Newly added) An isolated protein having an amino acid sequence having at least 90% sequence identity with AcaNAPc2/proline, wherein AcaNAPc2/proline has the amino acid sequence of AcaNAPc2 as set forth in SEQ ID NO:59 with the addition of a proline at the carboxy terminus of SEQ ID NO:59.

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288. (Newly added) A method of treating a pathologic condition characterized by abnormal thrombosis by preventing or decreasing the abnormal thrombosis which comprises administering a protein of claim 283.

289. (Newly added) A method of treating a pathologic condition characterized by abnormal thrombosis by preventing or decreasing the abnormal thrombosis which comprises administering a protein of claim 284.

290. (Newly added) A method of treating a pathologic condition characterized by abnormal thrombosis by preventing or decreasing the abnormal thrombosis which comprises administering a protein of claim 285.

291. (Newly added) A method of treating a pathologic condition characterized by abnormal thrombosis by preventing or decreasing the abnormal thrombosis which comprises administering a protein of claim 286.

292. (Newly added) A method of treating a pathologic condition characterized by abnormal thrombosis by preventing or decreasing the abnormal thrombosis which comprises administering a protein of claim 287.

293. (Newly added) A method according to any one of claims 288 to 292 wherein said pathologic condition is disseminated intravascular coagulopathy.

294. (Newly added) A method according to any one of claims 288 to 292 wherein said abnormal thrombosis occurs in the venous vasculature of patients undergoing major surgery in the lower extremities or abdominal area.

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295. (Newly added) A pharmaceutical composition comprising a protein of any one of claims 283 to 287 and a pharmaceutically acceptable carrier.